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ABSTRACT

In conjunction with the evaluation of Project R.E.A.D., an instrument to measure self-concept, "When Do I Smile?," was administered to 515 children, and the test itself was analyzed. The test consists of 21 or 23 items, depending on level, to which children respond by marking faces for each item which are smiling, passive, or frowning. Younger children were happier about almost every item and tended toward extreme responses. Older children were becoming much more attuned to their peers and did not like to go to school; younger children did like going to school. Results of factor and item analyses are given. Suggestions are offered concerning the use of measures of self-concept. (KM)

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EXPERIENCES WITH A MEASURE
OF SELF-CONCEPT IN THE
CHICAGO SCHOOLS

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EXPERIENCES WITH A MEASURE OF SELF-CONCEPT
IN THE CHICAGO SCHOOLS

In conjunction with the evaluation of Project R.E.A.D., a board-union sponsored "program for quality education in three innercity elementary schools", an instrument to measure self-concept was used. With test results for 515 children available, some analyses of the test itself were conducted. In this paper we will: (a) present some of the results of the test as excerpted from the Project R.E.A.D. evaluation report, (b) present the results of the test analyses, and (c) offer some suggestions concerning the use of measures of self-concept that have occurred to us as the result of our experiences.

The Measure of Self-Concept Used In Project R.E.A.D.

An extensive search was conducted by research and evaluation staff to find measures of self-image. About forty different instruments were found, of which the great bulk had only been administered to a relatively small number of children as a part of a study the author was conducting. At the time of selection, none had been found which had any more extensive norms than the one selected by R.E.A.D. school teachers to use in the R.E.A.D. Schools.¹

The R.E.A.D. Committee examined the available instruments and all statistical data pertaining to each test. The committee felt it important to select a test which concentrated at least in part on self-image as a learner. After careful examination of the tests available by the teachers of the three schools and the committee, When Do I Smile?, by Dr. Dale Dysinger, published by American Institute for

¹The result of this search has been incorporated in a booklet entitled "Instruments That Measure Self-Concept".

2

Research, was selected.² This is a test of 21 or 23 items, depending on level, to which children respond by marking faces for each item which are smiling, passive, or frowning. The test items may be found in Tables 1 and 2, along with responses of the second school year and fifth school year children tested. The categories shown were not part of the original test, but were developed by research and evaluation staff.³

It is extremely instructive to look at the differences between second school year and fifth school year children. The younger children are happier about almost every item and tend toward extreme responses; they tend to be either "very happy" or "very unhappy" about most items whereas the older children are much more likely to mark "in between" responses.

Analysis of items relating to peers, self, teachers, and parents shows that, consistent with child growth and development theory and research, the older children are becoming much more attuned to their peers and look less favorably toward doing things alone or with their parents or teachers.

²A copy of this test may be found in the appendix.

³The reader will be aided in his interpretation of the results by the following facts regarding each of these inner-city schools: Goudy has a multi-racial/multi-ethnic population including Spanish-speaking, Oriental, Black, American Indian, and Whites, including a number of whites from Appalachia; Seward is a school where 68% of the pupils have Spanish surnames and many of the pupils come from homes where English is not the primary spoken language; Yale is a school where 99% of the children enrolled are Black.

TABLE 1

Responses to When Do I Smile? (Lower Elementary)
Percent of Second Year Children Responding

KEY:

VH = Very Happy

H = Happy

ID = Indifferent

U = Unhappy

VU = Very Unhappy

Number
Responding

	COUNTY					SEWARD					YALL					TOTAL				
	VH	H	ID	U	VU	VH	H	ID	U	VU	VH	H	ID	U	VU	H	ID	U	VU	TOTAL
I. SCHOOL RELATED ITEMS:																				232
How do you feel about coming to school this morning?	77	3	6	1	8	35	6	5	2	2	36	11	12	2	2	16	2	4	4	
How do you feel when you are in school?	30	13	6	0	1	33	14	7	5	6	49	22	9	11	9	63	16	7	6	6
How do you feel about the things you do in school?	32	10	5	0	3	77	10	5	2	6	55	27	14	2	2	71	16	8	1	1
II. LEARNING RELATED ITEMS:																				
How do you feel about learning out of books?	71	15	8	1	5	70	15	5	0	2	74	14	7	4	1	74	15	6	2	3
How do you feel when the teacher has you work alone on a job or task?	39	7	15	3	36	52	14	6	8	20	44	15	9	8	24	45	13	10	6	24
How do you feel when the teacher calls on you to answer a question in class?	17	23	13	1	6	31	17	13	5	4	20	23	23	9	10	42	21	13	5	7
How do you feel when the teacher gives you something new to do?	35	10	3	0	2	36	7	5	1	1	31	12	4	2	1	37	10	4	1	1
III. GROUP OR REPORT CARD RELATED ITEMS:																				
How do you feel when you get your report card?	34	6	6	1	1	32	5	1	2	9	43	9	11	15	22	69	7	6	6	12

TABLE 1 (continued)
Responses to When Do I Smile? (Lower Elementary)
Percent of Second Year Children Responding

Number Responding	COUNT										GRADE										YEAR										TOTAL									
	CITY										COUNTRY										TOTAL										TOTAL									
	VI	II	IS	III	IV	V	VI	VII	VIII	IX	X	XI	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX	IX			
How do you feel when you see your report card?	76	14	5	0	5	70	8	6	2	14	30	22	16	12	20	27	15	9	5	14																				
IV. PERCENT																																								
How do you feel about the boys and girls in this class?	56	16	19	3	6	53	27	7	0	3	32	13	18	6	11	57	19	14	3	7																				
How do you think the boys and girls in this class feel about you?	49	19	17	5	10	61	15	8	4	12	16	20	12	2	9	33	22	12	4	10																				
How do you feel when the teacher has you work together with the others in your class?	69	9	15	3	5	50	20	6	5	7	32	27	17	10	14	33	19	13	6	9																				
How do you feel about being invited to a party?	64	3	1	3	29	87	6	2	0	5	33	7	4	1	0	32	5	3	1	10																				
How do you feel when you visit your best friends home?	65	3	16	9	5	95	7	2	2	4	30	7	10	1	2	78	3	9	4	4																				
V. SELF RELATED ITEMS:																																								
How do you feel about playing by yourself?	48	15	5	4	28	39	6	10	18	27	15	3	12	20	46	34	0	9	15	34																				
How do you feel about having your picture taken?	86	10	3	0	1	95	8	1	2	4	67	9	2	2	0	66	9	2	1	2																				

TABLE 1 (continued)

Responses to Which Do I Smile? (Lower Elementary)
Percent of Second Year Children Responding

Number Responding	GOURY					SEWARD					WILD					TOTAL				
	VI	II	III	IV	V	VI	II	III	IV	V	VI	II	III	IV	V	VI	II	III	IV	V
VI. TEACHER RELATED ITEMS:																				
How does the teacher feel about the boys and girls in the class?	73	3	10	3	6	54	12	9	9	16	62	13	7	2	11	64	11	9	4	12
How do the boys and girls in the class feel about the teacher?	82	7	5	3	3	75	6	5	3	6	72	6	2	2	5	72	7	7	2	5
VII. PARENT RELATED ITEMS:																				
How do you feel when you are seeing your father or mother at home?	82	9	2	3	3	81	11	3	3	2	55	31	10	2	2	73	17	5	2	2
How do you feel about talking with your parents about problems you might have?	48	11	13	6	22	49	14	11	10	16	30	17	20	14	19	42	15	14	10	19
How do you feel about your teacher and parents talking to each other about you?	60	6	11	1	22	46	16	5	11	22	29	15	17	14	25	43	13	11	10	23

TABLE 2

Responses to When Do I Smile? (Upper Elementary)
Percent of Fifth Grade Children Responding

KEY:

VU = Very Unhappy

H = Happy

ID = In I

U = Unhappy

VU = Very Unhappy

Number
Responding

I. SCHOOL RELATED ITEMS:

How do you feel about
going to school this
year?How do you feel when you
are at school?How do you feel about the
things you do in school?

II. LEARNING RELATED ITEMS:

How do you feel about
learning out of books?How do you feel when the
teacher has you work alone
on a job or task?How do you feel when the
teacher calls on you to
answer a question in
class?How do you feel when the
teacher gives you some-
thing new to do?III. GRADE OR REPORT CARD RELATED
ITEMS:How do you feel when you
get your report card?How do you feel about
your grades in reading?

GOODY 73	SEWARD 67					WALK 87					TOTAL 231				
	VU	H	ID	U	VU	VU	H	ID	U	VU	VU	H	ID	U	VU
19	23	38	8	12	19	24	45	6	8	22	27	38	9	4	21
24	33	29	7	7	24	45	28	3	0	15	43	24	12	1	21
30	36	30	4	0	24	31	37	6	2	28	39	26	2	5	23
20	33	37	5	5	24	31	40	5	0	49	35	14	0	2	32
22	22	28	16	12	19	27	40	15	0	24	27	34	9	6	22
14	31	41	9	5	9	30	52	8	0	15	28	47	6	4	13
33	30	29	4	4	20	35	28	5	2	28	43	19	5	5	20
41	15	25	11	8	13	31	24	12	5	33	14	42	6	5	34
16	37	29	9	9	19	27	37	6	9	22	33	35	5	4	20

Grade 2 (continued)
 Responses to Which Do I Smile? (Upper Elementary)
 Percent of Fifth Year Children Responding

Number Responding	COUNT					SCORED					YALE					TOTAL				
	VR	H	IB	UB	VO	VR	H	IB	U	VO	VR	H	IB	U	VO	VR	H	IB	U	VO
How do you feel about your grades in arithmetic?	22	29	32	13	4	12	34	36	13	5	31	28	33	6	2	33	30	33	10	4
How do you feel when you have to take your report card?	18	23	30	11	13	21	32	25	13	9	20	22	47	7	4	20	27	35	10	3
IV. PHASE																				
How do you feel about the boys and girls in this class?	21	46	32	0	1	13	36	40	0	3	32	28	49	0	1	19	36	41	2	2
How do you think the boys and girls in this class feel about you?	9	25	51	8	7	2	26	53	11	8	10	21	60	7	2	7	24	56	8	5
How do you feel when the teacher has you work together with the others in your class?	40	39	9	3	9	31	40	21	6	2	50	26	17	5	2	42	34	16	4	4
How do you feel about being invited to a party?	75	20	4	0	1	61	18	16	5	0	59	24	5	0	2	69	31	8	1	1
How do you feel when you visit your best friends home?	68	24	4	3	1	68	27	3	0	2	61	30	8	1	0	65	27	6	1	1
V. SIMILAR ITEMS:																				
How do you feel about playing by yourself?	7	13	15	24	41	5	3	22	40	30	5	4	19	40	39	7	18	34	34	34
How do you feel about having your picture taken?	53	20	14	5	3	49	20	16	2	3	62	24	11	2	1	57	24	14	3	2

TABLE 2 (continued)
Responses to "When Do I Smell? (Upper Elementary)"
Percent of Fifth-Year Children Responding

	GROUPY						SEATED						TABLE						TOTAL					
	76						67						37						202					
	V	H	ID	UR	VU		VH	H	ID	U	VU		VH	H	ID	U	VU		VH	H	ID	U	VU	
VI. TALK RELATED ITEMS:																								
How do the teacher feel about the boys and girls in class?	30	24	24	9	13		55	33	12	0	0		20	16	44	5	5		34	27	20	5	6	
How do the boys and girls in class feel about the teacher?	42	30	20	4	4		54	37	9	0	0		23	30	34	5	8		39	32	22	2	4	
VII. TALK RELATED ITEMS:																								
How do you feel when you are helping your father or mother at home?	44	30	13	4	4		40	30	27	3	0		44	36	18	2	0		43	32	21	3	1	
How do you feel about talking with your parents about problems you might have?	12	24	39	16	9		12	15	43	12	3		15	40	35	2	2		13	30	40	12	5	
How do you feel about your teacher and parents talking to each other about you?	12	16	41	17	14		10	13	58	13	6		13	16	47	11	13		12	15	43	14	11	

Important for this study is the question concerning the relative role of the school versus the role of maturity and other societal experiences in bringing about the changes between age groups. The older children do not ~~like to go to school~~ as much as the younger children do, but then again they are not as enthusiastic about going to parties or visiting friends either. The younger children like to go to school almost as much as they like to go to parties; the older children's responses indicate that while parties have slipped some in their estimation, school has slipped further.

The younger children at Yale are less happy about going to school than are those at Goudy and Seward. It is not clear whether the children at Yale have any different kind of school experience or whether this may be related to pre-school experiences different from those of children at Seward and Goudy, or whether they are just "wise before their time", since the older children's responses about happiness with the school look pretty much the same for all three schools.

Quite clearly any hope of being able to watch a child become more positive in his responses concerning self-image as he progresses through school, as measured by questions in this test, runs counter to a basic developmental trend which is associated with increasing maturity and is exhibited toward both school and non-school related items.

Results of Test Analyses

Results of factor analyses on the data are presented in Tables 3 and 4. These seem to indicate that the test does consist of a number of underlying factors. Some of these agree quite well with the "armchaired" categories in Tables 1 and 2, while others do not. A new arrangement of subcategories based on the factor analyses is suggested in Table 5.

An item analysis was performed on the data, using factors as subscales and attributing each item to that factor on which it had the highest loading. Results for intermediate test scores are given in Tables 6 and 7. In these tables directionalities of items have been reversed where necessary to correspond to factor loadings. The relatively high intercorrelations between items and subscales as compared with intercorrelations between items and total test gives further support to the view that there is more than one underlying dimension to the test. The estimates of reliability of the subscales are affected by the few number of items, but the alpha reliability coefficient for the total test is only .64, again affected by the multidimensionality of the test.

Table 4

Factor analysis on When Do I Smile? Test--Lower Elementary Level
(Unitities in the correlation matrix, varimax rotation.)

N = 283

	1	2	3	4	5	6	7
	PERCENT OF VARIANCE						
	9.988	9.170	5.444	11.145	8.171	5.672	6.540
	ROTATED FACTOR LOADINGS						
1. Coming to school this morning.....	-.026	.005	-.149	.486	-.143	-.187	-.438
2. Boys and girls in class.....	.280	-.495	-.051	.344	-.059	-.252	.040
3. Boys and girls feel about you.....	-.003	-.078	-.049	-.076	-.481	.223	-.639
4. When you are in school.....	.067	-.044	-.422	.537	-.052	-.157	-.071
5. Learning out of books.....	.172	-.123	-.132	.123	.123	-.178	-.694
6. Teacher feels about this class.....	-.036	.022	-.224	.141	-.669	-.056	-.034
7. Class feels about teacher.....	-.125	-.026	-.624	.135	-.378	-.185	-.032
8. Things you do in school.....	-.026	-.115	-.224	.693	-.154	.058	-.108
9. Teacher gives you something new.....	.121	-.074	-.644	.068	-.090	.090	-.210
10. Teacher has you work with others.....	.332	.092	-.015	.636	.025	.146	-.223
11. Teacher has you work alone.....	-.143	-.251	.045	.036	-.109	-.799	-.092
12. Get your report card.....	.824	-.042	.033	.023	-.033	.086	-.128
15. Answer a question in class.....	.260	.015	-.468	.347	-.143	-.033	-.146
16. Playing by yourself.....	.481	.408	-.190	-.018	.066	-.478	.017
17. Having your picture taken.....	.087	-.361	-.661	.127	.023	.056	.110
18. Being invited to a party.....	-.012	-.825	-.171	-.106	.170	-.087	-.041
19. Take your report card home.....	.757	.053	-.202	.198	-.207	.018	-.014
20. Helping father or mother.....	.021	-.105	-.041	.649	-.140	-.067	.318
21. Talking with parents about problems.....	.252	-.093	.131	.348	-.532	-.156	-.067
22. Teacher and parents talking about you.....	.426	.071	-.224	.038	-.626	.026	.052
23. Visit best friend's home.....	-.128	-.748	-.115	.124	-.128	-.040	-.135

Table 5

Categories for "When Do I Smile" based on Factor Analyses

I Feelings Toward School and Teacher

1. How did you feel about coming to school this morning?
4. How do you feel when you are in school?
6. How does the teacher feel about the boys and girls in this class?
7. How do the boys and girls in this class feel about the teacher?
9. How do you feel when the teacher gives you something new to do?
15. How do you feel when the teacher calls on you to answer a question in class.
22. How do you feel about your teacher and parents talking together about you?

II Feelings about Pleasant Experiences with Peers

17. How do you feel about having your picture taken?
18. How do you feel about being invited to a party?
23. How do you feel when you visit your best friend's home?

III Feelings About Grades and Report Card

12. How do you feel when you get your report card?
13. How do you feel about your grades in reading?
14. How do you feel about your grades in arithmetic?
19. How do you feel when you take your report card home?

IV Feelings Toward Classmates

2. How do you feel about the boys and girls in this class?
3. How do you think the boys and girls in this class feel about you?
10. How do you feel when the teacher has you work together with others in your class?

V Feeling About Schoolwork

5. How do you feel about learning out of books?
8. How do you feel about the things you do in school?

Table 5 (continued)

VI Feelings About Being Alone and Feelings Toward Others

- 11. How do you feel when the teacher has you work alone on a job or task?
- 16. How do you feel about playing by yourself?

VII Feelings About Parents

- 20. How do you feel when you are helping your father or mother at home?
- 21. How do you feel about talking with your parents about problems you might have?

Item Statistics for Intermediate Pupils' Tests - "When Do I
Smile?", Using Factors as Subscales

ITEM	SCALE	MEAN	SIGMA	R(TOTAL)	R(SCALE)
1	1	3.41	1.122	.4749	.7176
2	4	3.67	.894	.4602	.7271
3	4	3.17	.898	.3172	.7265
4	1	3.69	.987	.5194	.7599
5	5	3.86	1.008	.4209	.7348
6	6	3.75	1.166	.4081	.7727
7	1	3.95	1.086	.5428	.6977
8	5	3.80	.981	.4872	.7023
9	1	3.84	1.038	.4859	.6815
10	4	4.01	1.097	.4289	.7271
11	5	3.42	1.160	.3357	.7168
12	3	2.33	1.198	.1380	.7740
13	3	2.49	1.102	.1973	.5973
14	3	2.41	1.063	.2366	.6432
15	7	2.57	.930	.0658	.6922
16	6	2.17	1.162	.2778	.7707
17	2	4.28	1.003	.3900	.8177
18	2	4.51	.861	.3746	.7796
19	3	2.60	1.159	.1658	.8287
20	7	1.88	.935	-.0106	.7211
21	7	2.64	1.016	.0774	.7219
22	1	3.01	1.112	.4520	.7372
23	2	4.53	.787	.5039	.7150

Table 7

Subscale and Total Test Statistics for Intermediate Pupils' Tests - "When Do I Smile?"
Using Factors as Subscales

Item n	1	2	3	4	5	6	7	8
	5.0000	3.0000	4.0000	3.0000	3.0000	2.0000	3.0000	23.0000
mean	17.8922	13.3233	9.8276	10.8534	11.0776	5.9224	7.0948	75.9914
alpha	.7646	.6586	.6785	.5447	.5247	.3206	.5122	.6363
sigmas	3.8396	2.0540	3.2304	2.0999	2.2616	1.7963	2.0510	7.9654

Suggestions Concerning The Use of Measures of Self Concept

1. Program objectives concerning the improvement of self-concept need to be clearly and operationally defined. Self-concept seems not to be a unidimensional trait and it is very possible to end up measuring that which was never intended to be changed. The appropriate selection or construction of a self-concept test to evaluate a program requires this careful statement of objectives, which will also be necessary as guidelines for activities.

2. "Norms" can probably only have meaning when age or grade level is clearly specified, because evidently children grow less positive, and less given to extreme responses on a scale, on many items with advancing age.

3. For this same reason a pre-posttest design which would attempt to show more positive self-concept on the part of pupils measured as they grow older could be disastrous. The relative effects of school and increasing maturity in leading children to make more guarded responses as they grow older cannot be easily determined.

AMERICAN INSTITUTES FOR RESEARCH
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NAME _____ DATE _____

GRADE _____ SCHOOL _____

WHEN DO I SMILE ?

UPPER ELEMENTARY SCHOOL LEVEL

DIRECTIONS

Now you are going to answer some questions about how you feel about different things. Some of them you will feel very happy about, others you may feel unhappy about, and still others you may feel like one of the other faces shown below.

For example, in question A below, it asks, "How do you feel about eating ice cream?" Mark an (X) on the one face to the right of question A that shows how you feel. Most of you probably feel like the "very happy" face, so you would have marked that picture with an (X). Now try question B below, which asks, "How do you feel when you fall down on the playground?" Mark an (X) on the one face to the right of question B that shows how you feel. Most of you probably feel like the "very unhappy" face, so you would have marked that picture with an (X). Do you have any questions about how we are going to work with these pictures?

Now turn the page and mark how you feel about each of the questions, 1 - 23.

	VERY HAPPY	HAPPY	IN- BETWEEN	UNHAPPY	VERY UNHAPPY
A HOW DO YOU FEEL ABOUT EATING ICE CREAM?					
B HOW DO YOU FEEL WHEN YOU FALL DOWN ON THE PLAYGROUND?					